Docket Nos. 00-0233/00-0335
(Consolidated)
ICC Staff Exhibit 8.0

REBUTTAL TESTIMONY

of

ROCHELLE LANGFELDT

FINANCE DEPARTMENT
FINANCIAL ANALYSIS DIVISION

ILLINOIS COMMERCE COMMISSION

ILLINOIS INDEPENDENT TELEPHONE ASSOCIATION AND
ILLINOIS COMMERCE COMMISSION ON ITS OWN MOTION

ESTABLISHMENT OF A UNIVERSAL SUPPORT FUND PURSUANT TO SECTION 13-301(d) OF THE PUBLIC UTILITIES ACT

DOCKET NOS. 00-0233/00-0335 Cons.
PHASE II

MAY 31, 2001

Q. Please state your name and business address.

A. My name is Rochelle Langfeldt and my business address is 527 East Capitol Avenue, Springfield, Illinois 62701.

Q. By whom are you employed and in what capacity?

A. I am employed by the Illinois Commerce Commission ("Commission") as a Financial Analyst in the Finance Department of the Financial Analysis Division.

Q. Please state your educational background and work experience.

A. In May 1998, I received a Bachelor of Arts degree in Finance from Illinois College in Jacksonville, Illinois. In May 2000, I received a Master of Business Administration degree from the University of Illinois at Springfield. I have been employed by the Commission since June 2000.

Q. What is the purpose of your testimony in this proceeding?

A. I will respond to the testimonies of Michael P. Petrouske, who testified on behalf of Leaf River Telephone Company[1] ("Leaf River") and Home Telephone Company[2] ("Home"), and Richard N. Clarke, who testified on behalf of AT&T Communications of Illinois, Inc.,[3] as they pertain to capital structure.

Q. Please summarize your conclusions.

A. Staff's recommended capital structure is comprised of 40% debt and 60% equity. For the purpose of the economic cost test, Leaf River and Home propose to use

[1] Leaf River Telephone Company, Exhibit 1.
[2] Home Telephone Company, Exhibit 2.
[3] AT&T Communications of Illinois, Inc., Exhibit 4.0.

their actual capital structures, which have equity ratios exceeding 80% of capitalization. In contrast, Mr. Clarke recommends a 58% debt ratio. Staff's recommended capital structure is more reasonable than the capital structures suggested by Leaf River, Home, and Mr. Clarke.

Although a lower debt ratio, as proposed by Leaf River and Home, would result in a lower degree of financial risk, neither Leaf River nor Home adjusted downward Staff's recommended cost of equity, which is 15%. Staff's recommended cost of equity is based upon debt and equity ratios of 40% and 60%, respectively; therefore, it reflects a higher degree of financial risk than that inherent in the companies' actual capital structures.

Q. How does a public utility's capital structure affect the overall cost of capital?

A. An optimal capital structure would result in the lowest possible overall cost of capital. Up to a point, increasing the proportion of debt capital reduces the overall cost of capital due to the fact that interest payments are tax deductible. However, the use of debt increases the likelihood of default, thereby increasing the risk of the company and the cost of each capital component. Consequently, the excessive use of debt increases the overall cost of capital.

Conversely, the increasing use of equity decreases the degree of financial risk for a company, thereby decreasing the cost of each capital component.[4] However, since returns to equity holders are not tax deductible, the excessive use of equity would result in an inefficient cost of capital.

Q. What capital structure did Staff and Illinois Independent Telephone Association ("IITA") agree to use for purposes of this proceeding?

A. Staff and the IITA agreed to use a capital structure comprised of 40% debt and 60% equity.[5] That debt ratio is consistent with Standard & Poor's 40% total debt to total capital ratio benchmark for A-rated telecommunication companies.[6] Further, this capital structure compares favorably to the current telecommunication industry averages for common equity and debt (i.e., 57% and 37%, respectively).[7]

Q. Please describe Leaf River and Home's capital structure adjustments.

A. Both Leaf River and Home propose to use their actual capital structure rather than the 40% debt and 60% equity ratios to which Staff and IITA agreed upon. Leaf River's actual capital structure is comprised of 9.93% debt and 90.07% equity.[8] Home calculates its capital structure to be 9.47% debt capital and 90.53% equity capital.[9]

Q. Do you agree with the calculated capitalization ratios of Leaf River and Home?

[4] Financial risk is the additional risk placed on common shareholders as a result of debt financing.
[5] ICC Staff Exhibit 5.0, page 4 and IITA Exhibit 2.0, page 36.
[6] Standard & Poor's, *Ratings Direct*, "Financial Medians: Telecommunications Companies," June 16, 1999. An A credit rating indicates that a company has a strong capacity to meet its financial commitments but is somewhat more susceptible to adverse changes in circumstances and economic conditions than obligors with higher ratings (i.e., AAA and AA).
[7] *The Value Line Investment Survey, Ratings and Opinions*, April 6, 2001.
[8] Leaf River Telephone Company, Exhibit 1, page 9, lines 13-17.
[9] Home Telephone Company, Exhibit 2.0, page 6, line 23 - page 7, line 3.

A. I agree with the calculations presented by Leaf River. However, the capitalization ratios calculated by Home are not consistent with the ICC Form 23A balance sheet for the calendar year ended December 31, 2000. Based on the information shown on the balance sheet, Home's capitalization is actually comprised of 15.51% debt and 84.49% equity.[10]

Q. Is it appropriate to use the actual capital structures of Leaf River and Home for the economic cost test?

A. No. The actual common equity ratios for Leaf River and Home, 90.07% and 84.49%[11] respectively, are considerably higher than the current telecommunications industry average common equity ratio of 57%.[12] Using the actual capital structures of Leaf River and Home would likely result in an inefficient cost of capital. Although the Illinois Universal Service Fund is designed to make telephone service affordable across the state, customers of other carriers should not subsidize qualifying companies for maintaining cost-inefficient capital structures.

Further, if Leaf River and Home were allowed to use their actual debt to equity ratios for this proceeding, the overall cost of debt and equity capital that was agreed to between Staff and IITA for investor-owned local exchange carriers ("IO-LECs") would no longer accurately reflect the risk inherent in the capital structures of these two companies. Since Staff's recommended cost of equity, 15%, is based upon debt and equity ratios of 40% and 60%, respectively, it

[10] Home Telephone Company, ICC Form 23A for the year ended December 31, 2000, pages 5-9.
[11] This is the common equity ratio that Staff calculated, based on ICC Form 23A, because there was no supporting evidence for the common equity ratio proposed by Home, 90.53%.
[12] *The Value Line Investment Survey, Ratings and Opinions*, April 6, 2001.

reflects a higher degree of financial risk than that inherent in the companies' actual capital structures. According to the Modigliani-Miller model, capitalization affects the overall cost of capital for a firm.

Q. Please explain the Modigliani-Miller models ("MM models") further.

A. In 1958, the first MM model was published. This model illustrates that, in a world without personal or corporate taxes, both a firm's value and its cost of capital are independent of the firm's capital structure. The first MM model operates under the following restrictive set of assumptions: (1) no personal or corporate taxes; (2) businesses with same degree of business risk are referred to as being in a homogeneous risk class; (3) investors have homogeneous expectations about expected earnings and risk; (4) perfect capital markets exist; (5) the interest rate on all debt is at the risk-free rate; and, (6) firms expect zero growth.

A few years later, the MM model was revised to incorporate the corporate tax-effects of debt financing. This second MM model demonstrates that, in a world with corporate taxes, capital structure does affect a firm's value and its cost of capital. This is illustrated by the following two MM propositions:

I. The value of a levered firm is equal to the value of an unlevered firm in the same risk class plus the value of the tax savings.

II. The cost of equity to a levered firm is equal to the cost of equity to an unlevered firm in the same risk class, plus a risk premium (i.e., the product of the amount of financial leverage used, one minus the tax rate, and the differential between the costs of debt and equity to an unlevered firm). The equation for proposition II ("Proposition II formula") is:

$$k_{sL} = k_{sU} + (k_{sU} - k_d)(1-T)(D/S)$$

Where:

k_{sL} = the cost of equity for a levered firm;

k_{sU} = the cost of equity of an unlevered firm;

k_d = the cost of debt;

T = the corporate tax rate;

D = the market value of debt; and,

S = the market value of equity.[13]

Q. Please provide an example of proposition II, which illustrates the effect of a capital structure on the cost of equity.

A. The following example assumes that Firm A and Firm B: (1) pay a 40% corporate tax rate; (2) are in a homogeneous risk class; (3) face homogeneous investor expectations; (4) operate in perfect capital markets; (5) are able to lend and borrow at the risk-free rate (e.g., 6%); (6) expect zero growth; and (7) each have a market value of $100,000. Assume also that the cost of equity for an unlevered firm is 10%. Finally, while both firms have the same market value, Firm A is financed by 40% debt and 60% equity while Firm B is financed by 10% debt and 90% equity.

According to the Proposition II formula, Firm A's cost of equity (k_A) is 11.6%. That is calculated as follows:

$$k_A = 10\% + (10\% - 6\%)(1-0.40)(40{,}000/60{,}000)$$

[13] Brigham, Eugene F., et. al., Financial Management: Theory and Practice, pages 622-632.

According to the Proposition II formula, Firm B's cost of equity (k_B) is 10.3%. That is calculated as follows:

$$k_B = 10\% + (10\% - 6\%)(1-0.40)(10{,}000/90{,}000)$$

Firm A and Firm B are similar in all respects except capital structure. Debt capital is 40% of Firm A's market value and 10% of Firm B's market value. Firm A has a higher degree of financial risk than Firm B due to the higher debt ratio. This is reflected in Firm A's cost of equity, which is 11.6% compared to Firm B's cost of equity, 10.3%.

Q. Do you recommend using the MM models to adjust the cost of equity to reflect Home and Leaf River's higher equity ratios?

A. No. The MM models do not accurately measure the effect of changes in the capital structure due to the restrictive assumptions on which they are based. However, the premise that capital structure decisions affect the overall cost of capital remains relevant. This is evident in the fact that there are tax benefits resulting from financing with debt capital. In addition, the level of debt financing employed by a firm affects the cost of equity due to the degree of financial risk that results from a given level of debt capital. Clearly, cost of capital is not independent of capital structure decisions.

Q. Mr. Richard M. Clarke states, "...because of the stable financial condition for small carriers, they reasonably should have a more levered capital structure than that offered by the 40% debt ratio suggested by Mr. Schoonmaker." AT&T Ex. 4.0, page 10. Do you agree with this statement?

A. No. As I stated previously, the 40% debt ratio recommended by Staff and IITA is consistent with both the Standard & Poor's total debt to total capital ratio benchmark for A-rated telecommunication companies and the current industry average for debt capitalization. Further, the recommended costs of debt and equity for IO-LECs is based on the risks inherent in a capital structure comprising 40% debt and 60% equity.

Q. Does this conclude your direct testimony?

A. Yes.